

## 31

the first multimedia device generating one or more request signals on the bus for requesting that the multimedia bus transfer be said periodic multimedia data transfer, wherein the one or more request signals include the first multimedia device transferring information regarding said periodic multimedia data transfer, wherein said information includes periodicity information indicating an approximate period or frequency at which said periodic multimedia data transfers are to occur;

the second multimedia device receiving the addressing and control signals on the bus for the multimedia bus transfer;

the second multimedia device receiving the one or more request signals;

the second multimedia device determining if the second multimedia device can guarantee availability at said frequency specified in said information regarding said periodic multimedia data transfer;

the second multimedia device providing one or more handshake signals on the bus to the first multimedia device for indicating said periodic multimedia data transfer can proceed, wherein said providing one or more handshake signals occurs in response to the second multimedia device receiving the one or more request signals, wherein the second multimedia device providing said one or more handshake signals is performed in response to the second multimedia device determining that the second multimedia device can guarantee availability at said frequency specified in said information regarding said periodic multimedia data transfer;

the first multimedia device performing one or more multimedia bus transfers comprising periodic multimedia data after the first multimedia device generating said addressing and control signals and said one or more request signals, wherein said one or more multimedia bus transfers comprise the first multimedia device transferring said periodic multimedia data on the multimedia bus to the second multimedia device, wherein at least a subset of said plurality of multimedia bus transfers are performed periodically on the multimedia bus, wherein said periodic multimedia data transfers do not require further control or handshaking signals prior to said periodic multimedia data transfers.

21. A computer system, comprising:

a CPU;

## 32

main memory coupled to the CPU which stores data accessible by the CPU;

bridge logic coupled to the CPU and to the main memory, wherein the bridge logic includes a memory controller coupled to the main memory and also includes bus interface logic;

a bus coupled to the bridge logic, wherein said bus includes a plurality of data lines and control lines;

a plurality of multimedia devices coupled to said bus, wherein each of said multimedia devices perform operations on said bus, wherein the operations include a set of data transfer types, wherein said set of data transfer types includes normal data transfers and periodic data transfers, wherein each of said multimedia devices includes:

request logic configured to generate one or more request signals on the bus to a target multimedia device requesting said periodic data transfer is desired, wherein said request logic is further configured to transfer information regarding said periodic data transfer to the target multimedia device, wherein said information regarding said periodic data transfer includes periodicity information indicating an approximate period or frequency at which said periodic data transfers occur;

receiving logic coupled to receive said one or more request signals, wherein said receiving logic is further configured to determine if the multimedia device can guarantee availability at a frequency specified in said periodicity information received from the source multimedia device, wherein said receiving module includes a handshaking module configured to provide responsively one or more handshaking signals on the bus to a source multimedia device indicating a periodic multimedia data transfer can proceed;

I/O logic configured to perform one or more bus transfers of multimedia data comprising periodic multimedia data to the target multimedia device, wherein said bus transfers include said periodic data transfers, wherein said periodic data transfers occur after said one or more request signals have been generated, wherein said periodic data transfers do not require further control or handshaking signals prior to said periodic data transfers.

\* \* \* \* \*